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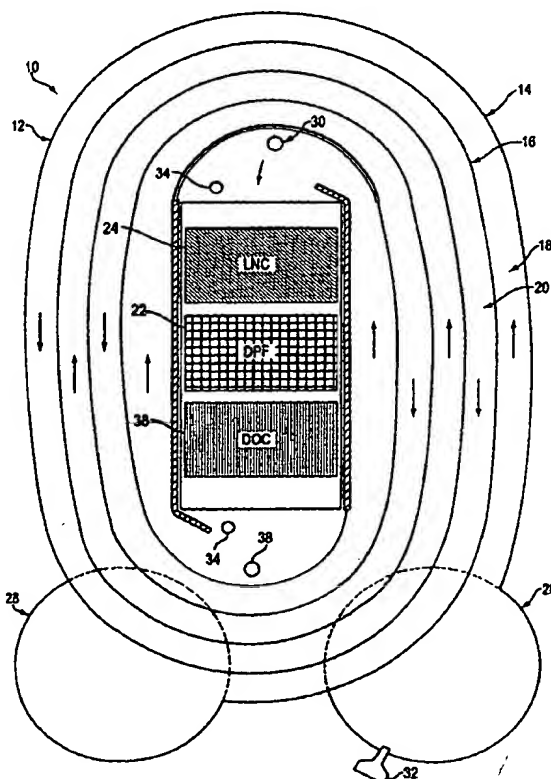
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(54) Title: INTEGRATED APPARATUS FOR REMOVING POLLUTANTS FROM A FLUID STREAM IN A LEAN-BURN ENVIRONMENT WITH HEAT RECOVERY

(57) Abstract

An apparatus and method to treat fluid streams, and in particular emissions from lean-burn engines such as diesel engines, are disclosed, which use multiple catalysts chosen to remove hydrocarbons, carbon monoxide, particulate matter, and oxides of nitrogen. The apparatus and method also provide for heat exchange between the inlet and outlet exhaust streams to sustain the catalyzed reactions, by placing the catalysts in the temperature zones where their operation is enhanced, and they also allow for regeneration of a filter used to trap particulate matter in the streams.



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